WHAT IS CLAIMED IS:

1. A method for determining the flow characteristics of a sealant material, wherein the test method comprises:

applying an initial mass of sealant material as a sealant material layer between a surface of a first test specimen and a surface of a second test specimen to form a test specimen assembly;

providing pressure upon the test assembly so as to compress the sealant material between the first and second test specimens for a specific length of time, thereby extruding sealant material from between the two test specimen surfaces;

determining the mass of sealant material extruded from the test specimen assembly after said length of time; and

calculating a flow characteristic of the sealant material as the ratio of the mass of extruded sealant material to the initial mass of the sealant material layer.

2. The method of Claim 1, wherein the step of applying the initial mass of sealant material as the sealant material layer comprises applying the sealant material as a uniformly thick layer.

3. The method of Claim 2, wherein the step of applying a sealant material layer between a first and second test specimen surface comprises the steps of:

applying an initial mass of sealant material as a uniformly-thick sealant material layer upon a first test specimen surface;

placing a second test specimen surface in contact with the exposed surface of the sealant material layer to form the test specimen assembly structure; and

die-cutting the test assembly thereby providing the various layers of the test assembly with a common outer periphery.

4. The method of Claim 2, wherein the first and second test specimen surfaces are metallic.

5. The method of Claim 4, wherein the first and second test specimen surfaces are aluminum or aluminum-alloy foil surfaces.

6. The method of Claim 2, wherein the first and second test specimen surfaces are non-metallic.

7. The method of Claim 1, wherein the step of providing pressure to the test assembly comprises providing a known amount of pressure to the test specimens for a measured length of time.

8. The method of Claim 7, wherein the temperature of the test surfaces is controlled and measured while pressure is provided.

9. The method of Claim 1, wherein the steps of

applying an initial mass of sealant material as the sealant material layer between the first and second test surfaces to form the test assembly;

providing pressure upon the test assembly;

determining the mass of sealant extruded from the common periphery after said length of time; and

calculating the flow characteristic of the sealant as the ratio of the mass of extruded sealant to the beginning mass of the sealant;

are repeated at multiple test temperatures.

10. The method of Claim 1, wherein the steps of

applying an initial mass of sealant material as the sealant material layer between the first and second test surfaces to form the test assembly;

providing pressure upon the test assembly;

determining the mass of sealant extruded from the common periphery after said length of time; and

calculating the flow characteristic of the sealant as the ratio of the mass of extruded sealant to the beginning mass of the sealant;

are repeated at multiple test pressures.

11. The method of Claim 1, wherein the step of determining the mass of extruded sealant comprises trimming any sealant extruded from the test specimen assembly and weighing the trimmed sealant.

12. The method of Claim 1, wherein the step of determining the mass of extruded sealant comprises measuring the beginning mass of the test specimen assembly prior to the application of pressure, trimming the extruded sealant after pressure has been applied, measuring the final mass of the test specimen assembly after the extruded sealant has been trimmed, and subtracting the beginning mass of the test specimen assembly from the mass of the test specimen assembly after trimming the extruded sealant material.

13. The method of Claim 1, further comprising the step of expressing the flow value of the sealant as a numerical figure calculated as

$$\text{Flow} = 100 \cdot (B/A)$$

where A=initial mass of sealant, and

B=mass of extruded sealant.

14. A method for determining the flow characteristics of a sealant for use between faying surfaces, wherein the test method comprises:

applying an initial amount of sealant material as a uniformly-thick layer between a first and second test surface to form a 1-inch diameter, circular sandwich structure aligned such that each of the layers of the sandwich have a common periphery;

placing the sandwich structure under compression of about 100 psi for about 5 minutes, thereby urging the sealant from between the two test surfaces;

determining the mass of sealant extruded from the common periphery after said length of time; and

expressing the flow value of the sealant as a numerical figure calculated as

$$\text{Flow} = 100 \cdot (B/A)$$

where A=initial mass of sealant, and

B=mass of extruded sealant.

15. A method of determining a flow characteristic profile for a sealant material, comprising the steps of

subjecting several samples of the sealant material to the steps of Claim 13 under uniform conditions but at different test temperatures for each sample; and,

plotting the flow value of each sample versus the test temperature at which each respective flow value was obtained.

16. A method of determining a flow characteristic profile for a sealant material, comprising the steps of

subjecting several samples of the sealant material to the steps of Claim 13 under uniform conditions but at different test pressures for each sample; and,

plotting the flow value of each sample versus the test pressure at which each respective flow value was obtained.